

CLAIMS

1. A purified nucleic acid comprising a sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 and sequences complementary to the sequences of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622.

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2. A purified nucleic acid comprising at least 15 consecutive nucleotides of a sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 and sequences complementary to the sequences of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622.

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3. A purified or isolated polypeptide comprising a sequence selected from the group consisting of the sequences of SEQ ID NOs. 812-1599.

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4. A method of making a cDNA comprising the steps of:

- a) contacting a collection of mRNA molecules from human cells with a primer comprising at least 15 consecutive nucleotides of a sequence selected from the group consisting of the sequences complementary to SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622;
- b) hybridizing said primer to an mRNA in said collection that encodes said protein;

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- c) reverse transcribing said hybridized primer to make a first cDNA strand from said mRNA;
- d) making a second cDNA strand complementary to said first cDNA strand; and
- e) isolating the resulting cDNA comprising said first cDNA strand and said second cDNA strand.

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5. A method of making a cDNA comprising the steps of:

- a) obtaining a cDNA comprising a sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622;
- b) contacting said cDNA with a detectable probe comprising at least 15 consecutive nucleotides of a sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 and the sequences complementary to SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 under conditions which permit said probe to hybridize to said cDNA;

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- c) identifying a cDNA which hybridizes to said detectable probe; and
- d) isolating said cDNA which hybridizes to said probe.

6. A method of making a cDNA comprising the steps of:

- a) contacting a collection of mRNA molecules from human cells with a first primer capable of hybridizing to the polyA tail of said mRNA;
- 5 b) hybridizing said first primer to said polyA tail;
- c) reverse transcribing said mRNA to make a first cDNA strand;
- d) making a second cDNA strand complementary to said first cDNA strand using at least one primer comprising at least 15 consecutive nucleotides of a sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622; and
- 10 e) isolating the resulting cDNA comprising said first cDNA strand and said second cDNA strand.

7. A method of making a polypeptide comprising the steps of:

- a) obtaining a cDNA which encodes a polypeptide encoded by a nucleic acid comprising a sequence selected from the group consisting of SEQ ID NOs. 24-811 or a cDNA which encodes a polypeptide comprising at least 10 consecutive amino acids of a polypeptide encoded by a sequence selected from the group consisting of SEQ ID NOs. 24-811;
- 15 b) inserting said cDNA in an expression vector such that said cDNA is operably linked to a promoter;
- c) introducing said expression vector into a host cell whereby said host cell produces the protein encoded by said cDNA; and
- 20 d) isolating said protein.

8. In an array of discrete ESTs or fragments thereof of at least 15 nucleotides in length, the improvement comprising inclusion in said array of at least one sequence selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622, the sequences complementary to the sequences of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 and fragments comprising at least 15 consecutive nucleotides of said sequence.

30 9. The array of Claim 8 including therein at least five sequences selected from the group consisting of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622, the sequences complementary to the sequences of SEQ ID NOs. 24-811 and SEQ ID NOs. 1600-1622 and fragments comprising at least 15 consecutive nucleotides of said sequences.

35 10. An enriched population of recombinant nucleic acids, said recombinant nucleic acids comprising an insert nucleic acid and a backbone nucleic acid, wherein at least 5% of said insert nucleic acids in said population comprise a sequence selected from the group consisting

of SEQ ID NOS. 24-811 and SEQ ID NOS. 1600-1622, the sequences complementary to SEQ ID NOS. 24-811 and SEQ ID NOS. 1600-1622 and fragments comprising at least 15 consecutive nucleotides of said sequences.

5 11. An antibody composition capable of selectively binding to an epitope-containing fragment of a polypeptide comprising a contiguous span of at least 8 amino acids of any of SEQ ID NOS. 812-1599, wherein said antibody is polyclonal or monoclonal.

10 12. A computer readable medium having stored thereon a sequence selected from the group consisting of a nucleic acid code of SEQ ID NOS. 24-811 and 1600-1622 and a polypeptide code of SEQ ID NOS. 812-1599.

15 13. A computer system comprising a processor and a data storage device wherein said data storage device has stored thereon a sequence selected from the group consisting of a nucleic acid code of SEQ ID NOS. 24-811 and 1600-1622 and a polypeptide code of SEQ ID NOS. 812-1599.

14. The computer system of Claim 13 further comprising a sequence comparer and a data storage device having reference sequences stored thereon.

20 15. The computer system of Claim 14 wherein said sequence comparer comprises a computer program which indicates polymorphisms.

16. The computer system of Claim 13 further comprising an identifier which identifies features in said sequence.

25 17. A method for comparing a first sequence to a reference sequence wherein said first sequence is selected from the group consisting of a nucleic acid code of SEQID NOS. 24-811 and 1600-1622 and a polypeptide code of SEQ ID NOS. 812-1599 comprising the steps of:

30 a) reading said first sequence and said reference sequence through use of a computer program which compares sequences; and

b) determining differences between said first sequence and said reference sequence with said computer program.

35 18. The method of Claim 17, wherein said step of determining differences between the first sequence and the reference sequence comprises identifying polymorphisms.

19. A method for identifying a feature in a sequence selected from the group consisting of a nucleic acid code of SEQ ID NOS. 24-811 and 1600-1622 and a polypeptide code of SEQ ID NOS. 812-1599 comprising the steps of:

5 a) reading said sequence through the use of a computer program which identifies features in sequences; and

 b) identifying features in said sequence with said computer program.

20. A vector comprising a nucleic acid according to either Claims 1 or 2.

10 21. A host cell containing a nucleic acid of Claim 20.

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